

Date: Monday, 11/6/2006 2:40:27 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : TOW RING
 Job Number : 29353
 Estimate Number : 10400
 P.O. Number : N/A Part Number : D2968043
 This Issue : 11/6/2006 S.O. No. : N/A Drawing Number : D2968
 Prsht Rev. : NC Project Number : N/A
 First Issue : N/A Type : MACHINED PARTS Drawing Revision : B1
 Previous Run : 28865 Material : N/A
 Due Date : 11/30/2006 Qty: 30 Um: Each
 Written By : [Signature]
 Checked & Approved By : [Signature]
 Comment : Est:C 0304.11 Reformat; Incorporated D2968-1/-5 KJ/RF

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 29353A STEM

✓



(30)

Comment: Sub-Component STEM

D2968-3 B 629353A

2.0 29353B RING



Comment: Sub-Component RING

D2968-5 B *A28268 b (21) B 282676 (9)Cpl 06-12-07

(30)

3.0 LARGE FAB 1 LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Weld D2968-3 & D2968-5 as per Dwg D2968 & QSI 004 using 4130 welding rod Identify as D2968-043

Batch: M15684Cpl 06-12-07

(30)

4.0 QC9 VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

11/06/12/07 (30)

5.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

11/06/12/07 (30)

6.0 PG PURCHASING



Comment: PURCHASING

Issue P/O: 2667Cpl 06-12-08

Description: D2968-043 to heat treat to ultimate tensile strength

125ksi as per Dwg D2968

Conformity sheet required

(30)

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: ☒ _____ Date: 07/01/15

QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Date: Monday, 11/6/2006 2:40:27 PM
User: King Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TOW RING

Job Number: 29353

Part Number: D2968043

Job Number:



Seq. #:

Machine Or Operation:

Description :

Issue P/O: 2668

Cad Plate per QQ-P-416F Class I Type II

Conformity sheet required

C26612/08

(30)

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Receive & Inspect For Transit Damage

Ensure certificate of conformity is attached

8.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

9.0

POWDER COATING

POWDER COATING



M102391



(30x)

Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.2) as per QSI 005 4.3

DO NOT POWDER COAT THREADS

M.R./M

07/01/11

10.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



M 07 01 11



(30)

Comment: INSPECT POWDER COAT

11.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 4113

07/01/12

(30)

12.0

QC21

FINAL INSPECTION/W/O RELEASE



(30)

Comment: FINAL INSPECTION/W/O RELEASE

07/01/15

Job Completion



U 07-01-15

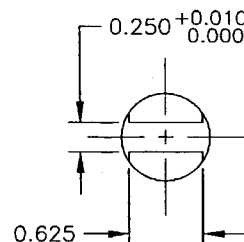
| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

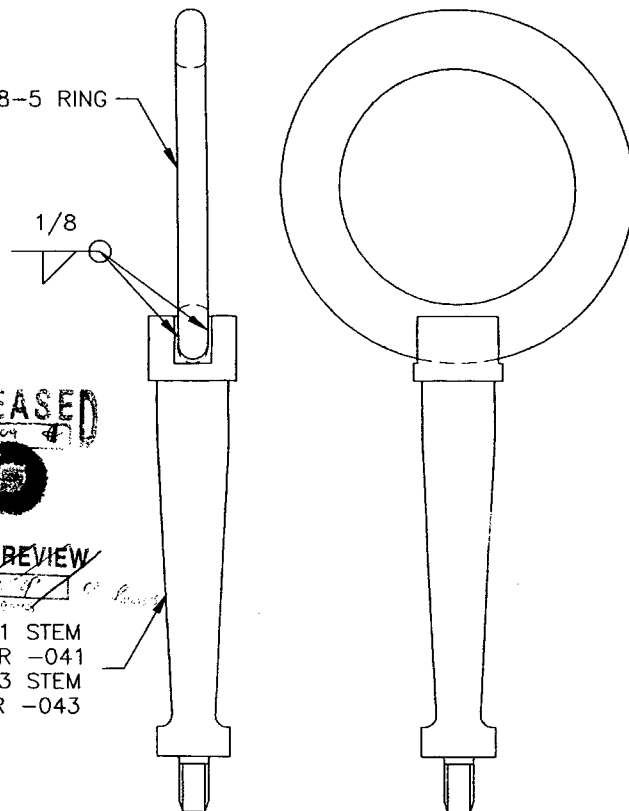
NOTE: Date & initial all entries



RELEASED
02-06-04

~~UNDER REVIEW~~

USE 2968-1 STEM
FOR -041
USE 2968-3 STEM
FOR -043



D2968-1 AND D2968-3 STEM:

MATERIAL: AISI 4130

△ 1 Ø0.750 O.D.

2 $\phi 0.625$ O.D.

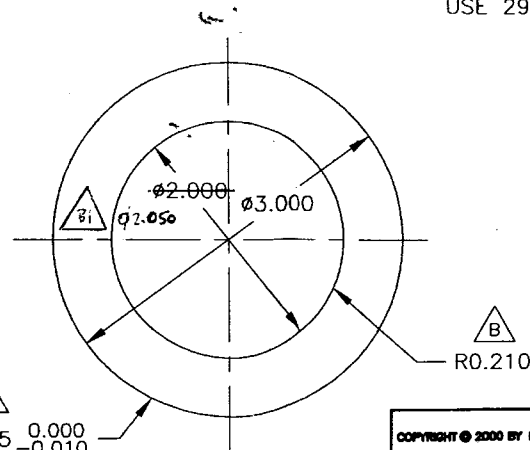
3 MACHINE UNIFORM TAPER FROM $\phi 0.363$ O.D.
TO $\phi 0.625$ O.D.

1/4-28 UNF THREAD WITH 0.063 GRIP
MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
UNLESS OTHERWISE INDICATED
TOLERANCES ARE PER DART QSI 018 UNLESS
OTHERWISE NOTED

D2968-5 RING:

MATERIAL AISI 4130

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



D2968-5 RING

D2968-041 AND D2968-043 TOW RING:






WELD PER QSI 004 ON ALL EDGES BETWEEN STEM AND RING
HEAT TREAT TO MIN ULTIMATE TENSILE STRENGTH OF 125 KSI
FINISH: CAD PLATE ENTIRE ASSEMBLY PER

QQ-P-416F CLASS I TYPE II

POWDER COAT WHITE (REF 4.3.5.2) PER DART

QSI 005 4.3 (EXCEPT THREADS)

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

| | | | |
|---|--|---|---|
| B | 00.05.31 | R0.125 AND R0.210 WERE 0.060 x 45° | |
| A | 00.03.07 | NEW ISSUE | |
| DESIGN  | DRAWN BY  |  | DART AEROSPACE LTD. HAMMERSBURY, ONTARIO, CANADA |
| CHECKED  | APPROVED  | DRAWING NO. D2968 | REV. B SHEET 1 OF 1 |
| DATE 00.05.31 | | TITLE TOW RING SCALE 1:1 | |

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RETURN TO
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WITHOUT NOTICE
WORK ORDER
29353
PNO

DAET Aerospace LTD
Client / Customer
PO2668
Votre # de commande / Your purchase order #D3868-043-B29353
de la pièce / part #
101843
Notre # de bon de livraison / Our packing slip #

| | | | |
|--|--------------------------|---|---------------------|
| Inspecteur / Inspector | Remault | Date, équipe / Date, shift | 29 Dec 2006 |
| Placage / Plating | GQP416 F Class 1 Type II | | |
| Quantité totale / Total quantity | 30 | Quantité inspectée / Inspected quantity | 30 |
| Adhésion / Adhesion | Bonne | | |
| Épaisseur / Thickness | L.C.D. | H.C.D. | Moy. / aver. 0.0005 |
| Coussures, taches / Leach, spots | Non | Rugosité / Roughness | Non |
| Quantité approuvée / Approved quantity | 30 | Quantité rejetée / Rejected quantity | |

Commentaires / Comments

Nous certifions que les pièces énumérées ci-dessus ont été faites en conformité avec vos dessins et spécifications et rencontrent les exigences contenues dans ces dessins et/ou spécifications.

We hereby certify that the parts listed above have been made in accordance with your drawings and specifications and are correct to the requirements contained in those drawings and/or specifications.

Signé au nom de /
Signed on behalf of**MANCO**
DOMPLEX



RELEASE NOTE

GST No. : R105468102

OAK 82322-1

☒ HEAD OFFICE
1371 SPEERS ROAD, OAKVILLE, ONTARIO
CANADA L6L 2X5
TEL: (905) 827-4171 FAX: (905) 827-7489

☐ 2009 WYECROFT ROAD, UNIT B
OAKVILLE, ONTARIO
CANADA L6L 6J4
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☐ QUEBEC DIVISION
7450 RUE VERITE STREET, ST. LAURENT, QUEBEC
CANADA H4S 1C5
TEL: (514) 334-4240 FAX: (514) 334-6269

12/29/2006

MM/DD/YYYY

PAGE: 1

BILL TO: 1DAR01
DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON

SHIP TO: MANCO DAMPLEX
4660 HICKMORE
ST. LAURENT, PQ

K6A 1K7

H4T 1K2

| DATE SHIPPED | SHIP VIA | F.O.B. |
|------------------|----------|--------|
| 12/29/2006 | | ORIGIN |
| CUSTOMER P/O No. | JOB No. | TERMS |
| PO00002667 * | | COD |

| PART No. | DESCRIPTION | UOM | QTY ORD | QTY SHPD | TEST RESULTS |
|-----------|--|-----|------------|-------------|--------------|
| D2968-041 | TOW RING | EA | 32 | 32 | |
| | Process Specifications: <input checked="" type="checkbox"/> Procedure: 4047 HEAT TREATED TO 125 KSI MIN. 100% HARDNESS TESTED PER ASTM E-18, HRC 27-32.5 MATERIAL: 4130 | | | | |
| B29836 | | | | | |
| D2968-043 | TOW RING | EA | 30 | 30 | |
| | Process Specifications: <input checked="" type="checkbox"/> Procedure: 4047 HEAT TREATED TO 125 KSI MIN. 100% HARDNESS TESTED PER ASTM E-18, HRC 27-32.5 MATERIAL: 4130 | | | | |
| B29353 | | | | | |
| | * AMENDMENT #1, JAN. 10, 2007 | | | | |

100% HARDNESS TESTED

64 PS.

31/32 HRC



I hereby certify that the material covered by this release note has been inspected and tested and conforms to all specifications relevant thereto in accordance with the conditions of the contract / or purchase order.

ON BEHALF OF VAC AERO INTERNATIONAL INC.

Sandra Freeman
Authorized Q.C. Inspector



HEAT TREATING



VACUUM BRAZING - HEAT TREATING - SPECIAL PROCESSING - FURNACE EQUIPMENT
TURBINE COMPONENT OVERHAUL - PLASMA AND OTHER COATINGS